

**FINAL  
OPERATIONAL RANGE ASSESSMENT PROGRAM  
PHASE I QUALITATIVE ASSESSMENT REPORT  
MITCHELL TRAINING AREA  
MITCHELL, SOUTH DAKOTA**

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Prepared for:

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## EXECUTIVE SUMMARY

The United States (U.S.) Army is conducting qualitative assessments at operational ranges to meet the requirements of Department of Defense policy and to support the U.S. Army Sustainable Range Program. The operational range qualitative assessment (hereinafter referred to as Phase I Assessment) is the first phase of the U.S. Army Operational Range Assessment Program. This Phase I Assessment evaluates the operational range area at South Dakota Army National Guard Mitchell Training Area to assess whether further investigation is needed to determine if potential munitions constituents of concern (MCOC) are or could be migrating off-range at levels that may pose an unacceptable risk to human health or the environment. In conducting the Phase I Assessment, MCOC sources, potential off-range migration pathways, and potential off-range human and ecological receptors are evaluated as appropriate.

Mitchell Training Area is located north of Mitchell, South Dakota, in Davison County. An update to the Army Range Inventory Database-Geodatabase (ARID-GEO) was submitted to the U.S. Army Environmental Command in December 2005. The ARID-GEO (2005) identifies two operational ranges; both are eligible for the Phase I Assessment. The two operational ranges evaluated in this Phase I Assessment encompass 41.25 acres, with a total installation area of 99.35 acres. The total operational range area was derived from the Operational Use Area (total range area) acreage as reported in ARID-GEO (2005). In ARID-GEO (2005), 58.10 acres of the installation are identified as other than operational area. Training activities conducted at Mitchell Training Area include the use of one small arms range and the use of one training and maneuver area (ARID-GEO, 2005).

Potential MCOC sources identified at Mitchell Training Area are small arms impact berms. In general, MCOC from primary source areas potentially impact the following source media: (1) soil (e.g., impact berms) and (2) surface water / sediment (e.g., direct deposition into streams and wetlands).

Potential MCOC can be released to off-range areas via storm water drainage. Release mechanisms for soil may include erosion and runoff to off-range surface water and sediment. Due to the surface water drainage features at Mitchell Training Area, potential MCOC could be transported off-range via storm water drainage but the potential MCOC are unlikely to reach human and ecological receptors located at Lake Mitchell, at Firesteel Creek, and in area wetlands.

The two operational ranges at Mitchell Training Area are categorized as Unlikely.

### **Unlikely – Five-Year Review**

The two ranges at Mitchell Training Area are categorized as Unlikely, totaling 41.25 acres. These ranges consist of a small arms range and a training and maneuver area. Ranges where, based upon a review of readily available information, there is sufficient evidence to show that there are no known releases or source-receptor interactions off-range that could present an unacceptable risk to human health or the environment are categorized as Unlikely. Ranges categorized as Unlikely are required to be re-evaluated at least every five years. Re-evaluation may occur sooner if significant changes (e.g., change in range operations or site conditions, regulatory changes) occur that affect determinations made during this Phase I Assessment.

**Table ES-1** summarizes the Phase I Assessment findings.

**Table ES-1: Summary of Findings and Conclusions for Mitchell Training Area**

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	Two operational ranges; 41.25 acres	Small arms impact berms	Surface water runoff flowing off-range via stormwater drains	None		Re-evaluate during the five-year review. No receptors were identified.
		No source—limited or no military munitions use	Not evaluated (no source identified)			Re-evaluate during the five-year review. No source was identified.

**ABBREVIATIONS/ACRONYMS**

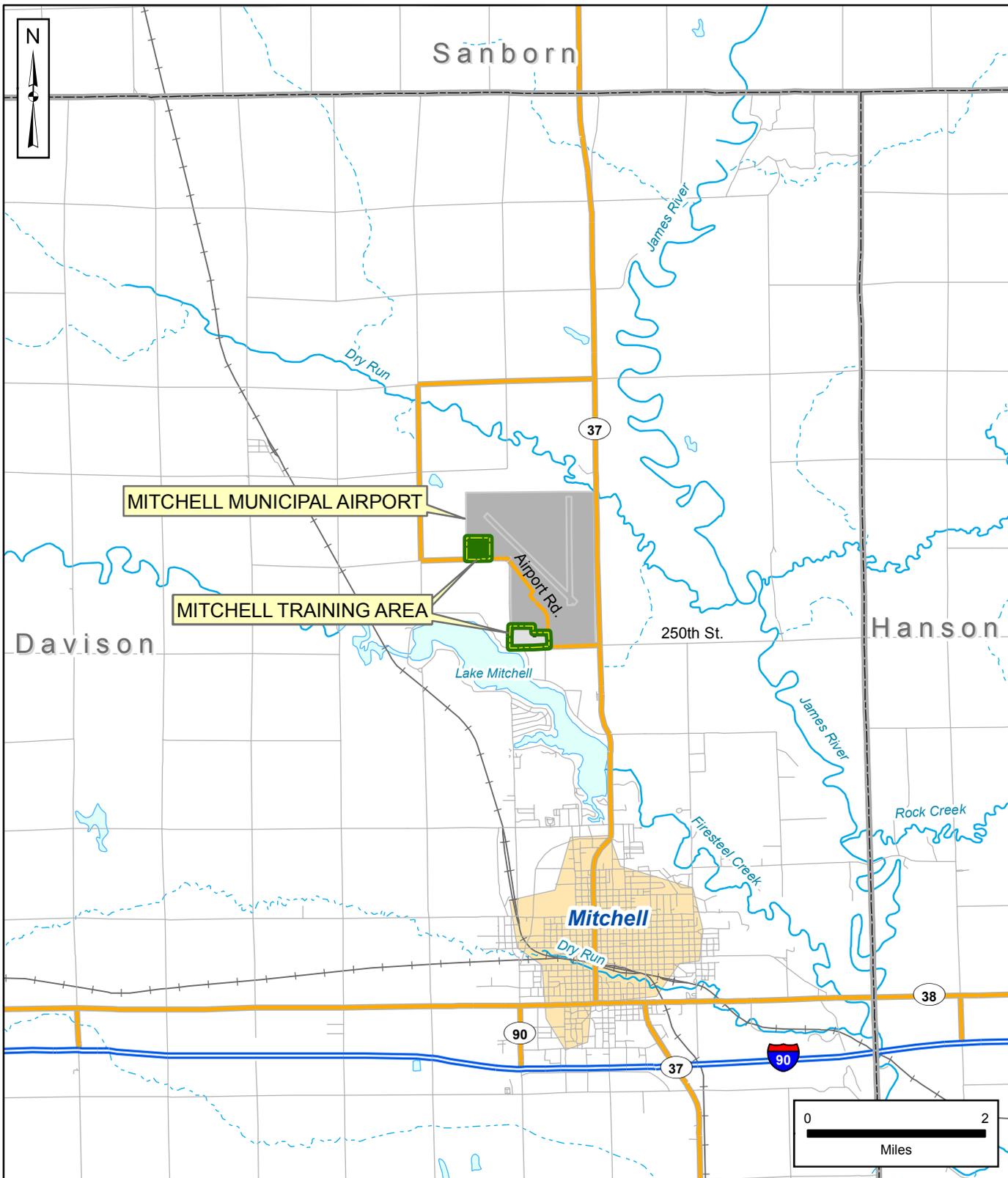
ARID-GEO	Army Range Inventory Database-Geodatabase
bgs	Below Ground Surface
CSM	Conceptual Site Model
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.)
gpm	Gallons per minute
GW	Groundwater pathway identified. (This refers to range grouping; M designation always precedes GW designation.)
H	Human receptors identified. (This refers to range grouping; pathway designation always precedes H designation.)
HUC	Hydrologic Unit Code
LS	Limited Source
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCOC	Munitions Constituents of Concern
NG	Nitroglycerin
ORAP	Operational Range Assessment Program
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
RFMSS	Range Facility Management Support System
SDARNG	South Dakota Army National Guard
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
U.S.	United States
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Command
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey



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**Operational Range Assessment Program  
Phase I Qualitative Assessment  
Mitchell Training Area, SD**

**Figure 1-1  
Mitchell Training Area Location**



**Installation**

- Installation Boundary
- Operational Area
- Other than Operational Area

**Hydrology**

- River/Stream (Perennial)
- Stream (Intermittent)
- Water Body

**Transportation**

- Interstate
- Major Road
- Local Road
- Railroad

**Administrative**

- County Boundary
- Urbanized Area
- Airport

**Data Sources:**

AEC, ARID-GEO, 2005  
ESRI, StreetMap USA, 2005

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